

# SCIENCE NEWS INDEX

Vol. 126, Nos. 1-26, July-December, 1984, pp. 1-416

Science Service, Washington, D.C. 20036

|                                     |                            |
|-------------------------------------|----------------------------|
| <b>A</b>                            |                            |
| Abbott, Edwin A.                    | 273,284                    |
| Abel, Richard F.                    | 389                        |
| Abrahamson, James                   | 235                        |
| Academic achievement                | 296                        |
| Academic freedom                    | 296                        |
| <i>Acanthaster planci</i> starfish  | 332                        |
| Accelerator, Heavy-ion              | 245                        |
| Acetylcholine sensitivity           | 68                         |
| Acetylputrescine                    | 342                        |
| Acid rain                           | 58,158,308,313             |
| Acidophilus milk                    | 118                        |
| Acquired immune deficiency syndrome | See: AIDS                  |
| Acuña, Mario                        | 363                        |
| Adams, Larry E.                     | 205                        |
| Adelberg, Edward                    | 155                        |
| Adelman, Leonard M.                 | 330                        |
| Adolescents                         | See: Teenagers             |
| Adrenaline                          | 166                        |
| Aerodynamics                        | Computational 200          |
| African soil dust                   | 376                        |
| Agard, David                        | 394                        |
| Agent Orange                        | 117,296                    |
| Agent Orange suit                   | 296                        |
| Aggression, Childhood               | 360                        |
| Aggressiveness                      | 190                        |
| Aging, Cell                         | 390                        |
| Aging-related maculopathy           | 378                        |
| AIDS                                | 6,54,121,261               |
| AIDS-linked virus                   | 261                        |
| AIDS-linked virus genes             | 164                        |
| Aihara, H.                          | 9                          |
| Air pollution                       | 36,313                     |
| Aitken, R. J.                       | 46                         |
| Alarie, Yves                        | 372                        |
| Albin, E. F.                        | 244                        |
| Albrecht, Pierre                    | 372                        |
| Alcohol drinking                    | 267                        |
| Alcoholism                          | 181,196                    |
| Aleksandrov, Vladimir               | 204                        |
| Alexander, Victor                   | 329                        |
| Algae eyespot                       | 295                        |
| Allen, Joseph P.                    | 326                        |
| Allen, William R.                   | 184                        |
| Allergic reactions                  | 102                        |
| Allergies, Environmental            | 90                         |
| Alloys, Selenium-tellurium          | 376                        |
| Alloys, Semiconductor               | 136                        |
| Alpha fetoprotein                   | 6                          |
| Alter, Harvey J.                    | 261                        |
| Alvarez, Luis                       | 151                        |
| Alzheimer's disease                 | 132,167,220,237,263        |
| Amblyopia                           | 312                        |
| Ambulances                          | 8,147                      |
| Amino acid, Eggshell                | 311                        |
| Amino-levalulinic acid              | 197                        |
| Amphitrite                          | 151                        |
| AMPTE                               | 52,117,197,353,362,371     |
| AMPTE comet                         | 353,362,371                |
| Amyotrophic lateral sclerosis       | 246                        |
| Anderson, Lowell T.                 | 266                        |
| Anderson, William A.                | 397                        |
| André, Francis E.                   | 267                        |
| Andrews, George F.                  | 283                        |
| Androgen                            | 38                         |
| Androstenedione                     | 137                        |
| Angel dust                          | 6                          |
| Animal feed antibiotics             | 119                        |
| Animal language studies             | 346                        |
| Animal tracks, 310 million-year-old | 293                        |
| Animals, Farm                       | 229                        |
| Animals, Ocean floor                | 374                        |
| Annexstad, John                     | 244                        |
| Anorexia                            | 73                         |
| Antarctic air, Ancient              | 205                        |
| Antczak, Douglas F.                 | 184                        |
| Antel, Jack                         | 246                        |
| Antennae, Transplanted moth         | 281                        |
| Antibodies, Monoclonal              | See: Monoclonal antibodies |
| Antibiotics, Animal feed            | 119                        |
| Anticavity vaccine                  | 182                        |
| Antihistamines                      | 172                        |
| Antimalarial antibody               | 184                        |
| Anxiety                             | 216                        |

|                               |                        |
|-------------------------------|------------------------|
| Apnea                         | 152                    |
| Apples                        | 19                     |
| Aquaspirillum                 | 87                     |
| <i>Archimedes' screw</i>      | principle 377          |
| Architecture machine          | 10                     |
| Ariane rocket                 | 86                     |
| Arianespace, Inc.             | 86                     |
| Arnold, James                 | 264                    |
| Arntz, Wolf E.                | 228                    |
| Arsenic poisoning             | 9                      |
| Arterial plaque               | 377                    |
| Arteries, Artificial          | 351                    |
| Arthritis                     | 277                    |
| Asaro, Frank                  | 151                    |
| Asbestos                      | 36                     |
| Aspartame                     | 60                     |
| Asteroids                     | 279                    |
| Asthmatics                    | 297                    |
| Athanas, Michael              | 149                    |
| Athletes, Female              | 69                     |
| Athletes, Injuries to         | 53                     |
| Athletes, Olympic             | 72                     |
| Atkov, Oleg                   | 230                    |
| Atmosphere, Oxygen content of | 7                      |
| Atmospheric circulation       | 376                    |
| Atomic nuclei                 | 9                      |
| Atoms, Surface                | 237                    |
| Atoms, Thin crystal           | 237                    |
| Atrial natriuretic factor     | 4                      |
| Auriculism                    | 4                      |
| Autism                        | 266                    |
| Avert                         | 267                    |
| <b>B</b>                      |                        |
| B-cell lymphoma               | 23                     |
| B-cells                       | 388                    |
| Babal, Laszlo                 | 409                    |
| Babirusa                      | 327                    |
| Baby Doe rule                 | 25,245                 |
| Baby Face                     | 276,325                |
| Bachman, John                 | 8                      |
| Bacteria                      | 328                    |
| Bacteria, Fossil fuels        | 372                    |
| Bacteria, Magnetic            | 87                     |
| Bacteria, Methane-loving      | 329                    |
| Bacteria, Oral of oldest      | 343                    |
| Bacteria, Photo of oldest     | 389                    |
| Bacterial mating              | 68,154                 |
| Bailey, James R.              | 68                     |
| Bailey, Leonard L.            | 276,325                |
| Bailey, Mark                  | 279                    |
| Bain, Jerald                  | 46                     |
| Baird, Donald                 | 293                    |
| Baker, John D.                | 236                    |
| Baking soda                   | 360                    |
| Bailhaus, William F. Jr.      | 202                    |
| Bailou, Jonathan              | 232,251                |
| Banchoff, Thomas F.           | 284                    |
| Bar-Yam, Yaneer               | 136                    |
| Barber, Richard T.            | 228                    |
| Barger, Keith E.              | 328                    |
| Barger, Vernon                | 292                    |
| Barletta, William             | 44                     |
| Barley mildew                 | 361                    |
| Barnett, Scott                | 136                    |
| Barrera, Ricardo              | 135                    |
| Barrus, Jean                  | 366                    |
| Barton, Shelia C.             | 213                    |
| Basket star                   | 257,268                |
| Baskin, David                 | 375                    |
| Bass, George F.               | 359                    |
| Bassett, William A.           | 164                    |
| Batteries, Solid-state        | 326                    |
| Bauer, Gerry                  | 292                    |
| Bazer, Fuller                 | 327                    |
| Beam weapons                  | 172,642,99,115,126,195 |
| Beardsley, W. R.              | 88                     |
| Beauchamp, Gary K.            | 137                    |
| Beck, Louis                   | 315                    |
| Bee, Cancer inhibitors        | 390                    |
| Beef, Waterbath-cooked        | 109                    |
| Beggs, James                  | 133                    |
| Begleiter, Henri              | 196                    |
| Behavior, Genetic             | 181                    |
| Beyl, Graham                  | 155                    |
| Belanti, Joseph               | 90                     |
| Bellet, Dominique H.          | 6                      |
| Belmont, Andrew               | 394                    |
| Bentley, John L.              | 170                    |

|                               |             |
|-------------------------------|-------------|
| Benzodiazepines               | 357         |
| Berg, Howard C.               | 295         |
| Bernstein, Howard             | 153         |
| Best, Connie L.               | 153         |
| Beta Pictoris                 | 244         |
| Bethanechol chloride          | 263         |
| Bever, Michael B.             | 141         |
| Bick, Katherine               | 132,167     |
| Biebach, Herbert              | 119         |
| Bikson, Tori K.               | 123         |
| Billrubin                     | 153         |
| Bills, Donald                 | 109         |
| Binge eating                  | 310         |
| Binnig, Gerd                  | 101         |
| Biological control            | 149         |
| Biological warfare laboratory | 397         |
| Biotechnology, Space          | 280         |
| Birds, Non-migrating          | 119         |
| Birth defects                 | 117         |
| Blackbirds, Non-migrating     | 119         |
| Blakemore, Richard P.         | 87          |
| Blepharospasm                 | 351         |
| Blinking, Uncontrolled        | 351         |
| Block, John R.                | 381         |
| Blom, Ronald G.               | 187         |
| Blood clots                   | 312,377     |
| Blood clotting factor         | 340         |
| Blood plasma                  | 237         |
| Blood pressure regulator      | 4           |
| Blood thinner                 | 153         |
| Blood typing                  | 104         |
| Blood vessels, Artificial     | 351         |
| Bloom, Joseph D.              | 219         |
| Blubber                       | 327         |
| Blue-purple dye, Ancient      | 148         |
| Blumenthal, James A.          | 73          |
| Blumenthal, Susan             | 266         |
| Blyth, Carl S.                | 53          |
| Boatner, Lynn A.              | 214         |
| Bodnar, Robert J.             | 313         |
| Bodner, Anne                  | 164         |
| Bogoch, Samuel                | 184         |
| Bogue, Scott W.               | 341         |
| Bohoun, Claude                | 6           |
| Bombs, Biodegradable          | 8           |
| Bond, Gerard C.               | 328         |
| Bond, Nicholas A.             | 19          |
| Bone loss                     | 69          |
| Bonner, Yelena                | 118         |
| Borstrom, Georg               | 298         |
| Botstein, David               | 106,107,211 |
| Botulinum toxin               | 351         |
| Bourbon                       | 39          |
| Bowyer, C. Stuart             | 173         |
| Boyd, R. Dean                 | 137         |
| Boyer, Herbert W.             | 150         |
| Bracher, Katherine            | 88          |
| Brain death                   | 377         |
| Brain development, Fetal      | 247         |
| Brain glial cells             | 251         |
| Brain hemispheres             | 357         |
| Brain protein synthesis       | 220         |
| Brain receptor analysis       | 281         |
| Brain tumors                  | 292,379     |
| Brains, 7000-year-old         | 388         |
| Brascha, Mario                | 296         |
| Branch, Andrea D.             | 92          |
| Brandt, Thomas D.             | 357         |
| Brazel, Anthony J.            | 309         |
| Breast cancer                 | 60,341      |
| Breed, Carol                  | 186         |
| Breeding, Captive             | 232,250,323 |
| Brennan, Margaret M.          | 281         |
| Brenner, M. Harvey            | 7           |
| Brickell, Ernest F.           | 330         |
| Bridges, Frank G.             | 133         |
| Bringsas, Ross                | 350         |
| Broadbent, Robert             | 315         |
| Bronze Age shipwreck          | 359         |
| Brookhaven Tandem/AGS         | 245         |
| Brooks, Howard                | 381         |
| Brown, Lester                 | 212         |
| Brown, Norman R.              | 152         |
| Brown, Paul                   | 301         |
| Brown, William E.             | 372         |
| Brownlee, Donald E.           | 7           |
| Broyhill, James               | 75          |
| Brugia malayi                 | 151         |
| Brune, Peter                  | 157         |
| Bubel, H. Curt                | 230         |
| Buchheim, Robert W.           | 340         |
| Buck, Ernest                  | 109         |

|                                      |                             |
|--------------------------------------|-----------------------------|
| Buildings, Earthquake-designed       | 134                         |
| Bullard, Reuben                      | 100                         |
| Bunn, Paul                           | 149                         |
| Burford, Anne M.                     | 25,84                       |
| Burke, Bernard F.                    | 230                         |
| Burns                                | 102                         |
| Burns, Peter J.                      | 89                          |
| Burr, Walter                         | 231                         |
| Burrows, William                     | 27                          |
| Bussioletti, John E.                 | 202                         |
| Buzbee, William                      | 203                         |
| Byrne, John V.                       | 343                         |
| <b>C</b>                             |                             |
| c-myc gene                           | 180                         |
| Cabrera, Blas                        | 9                           |
| Cadien, Ken                          | 136                         |
| Caffeine                             | 229                         |
| Calendar                             | 168,259                     |
| Calendar, Maya                       | 282                         |
| Calhoun, Lawrence G.                 | 152                         |
| Cancer genes                         | 180                         |
| Cancer inhibitors, Beef              | 390                         |
| Cancer treatment                     | 121                         |
| Cancer, Blood cell                   | 294                         |
| Cancer, Brain                        | 292                         |
| Cancer, Breast                       | 60,341                      |
| Cancer, DNA probe technique          | 104                         |
| Cancer, Eye                          | 184                         |
| Cancer, Genetic diversity            | 23                          |
| Cancer, Liver                        | 6                           |
| Cancer, Lung                         | 6,9,149                     |
| Cancer, Power lines                  | 3                           |
| Cancer, Prostate                     | 60                          |
| Cancer-inhibiting genes              | 180                         |
| Cann, Christopher E.                 | 69                          |
| Capsaicin                            | 132                         |
| Car, Roberto                         | 350                         |
| Carbon dioxide, Atmospheric          | 156,309,376                 |
| Carbon monoxide                      | 8                           |
| Carbon, Liquid                       | 164                         |
| Caribou                              | 279                         |
| Carlin, James T.                     | 172                         |
| Carnegie Inst. of Washington         | 5                           |
| Carpenter, Russ                      | 267                         |
| Car, Robert H.                       | 70                          |
| Carrasco, Andrés E.                  | 21                          |
| Casani, John                         | 151                         |
| Casagrainian system                  | 280                         |
| Cataract operations                  | 329                         |
| CCD                                  | See: Charge coupled devices |
| Cell division termination            | 390                         |
| Cell theory                          | 392                         |
| Cell's cytoplasm                     | 392                         |
| Cell's pericentriolar                | 392                         |
| Cells, Living                        | 101                         |
| CERN                                 | 292                         |
| Chafee, John H.                      | 71                          |
| Chalcogenide device                  | 121                         |
| Chalermwat, Kashane                  | 214                         |
| Chambered nautilus                   | 108                         |
| Chance, Don                          | 20                          |
| Chandler, Craig                      | 204,259                     |
| Chang, Stephen S.                    | 172                         |
| Chang, Tom                           | 137                         |
| Chang, Wen F.                        | 172                         |
| Chaos theory                         | 19                          |
| Chapman, Clark                       | 151                         |
| Charge coupled devices               | 22                          |
| Chau, Nam-Hai                        | 22                          |
| Chemical dumps                       | 313                         |
| Chemical hazards                     | 46                          |
| Chemical weapon stockpiles           | 340                         |
| Chemical weapons                     | 89                          |
| Chemicals, Toxic                     | 329                         |
| Chestnut, Donald R. Jr.              | 293                         |
| Chewing gum, Nicotine                | 8                           |
| Chichester, Clinton                  | 230                         |
| Chimeric model                       | 237                         |
| Chimpanzees                          | 121,261,346,360             |
| China                                | 89                          |
| Chinchillas                          | 108                         |
| Chironomid midge, New species        | 55                          |
| Chlamydomonas                        | 89,295                      |
| Chloracne                            | 296                         |
| Chlorinated Pesticide Screening Test | 329                         |

# SCIENCE NEWS INDEX

Vol. 126, Nos. 1-26, July-December, 1984, pp. 1-416

Science Service, Washington, D.C. 20036

|                                     |                        |
|-------------------------------------|------------------------|
| <b>A</b>                            |                        |
| Abbott, Edwin A.                    | 273,284                |
| Abel, Richard F.                    | 389                    |
| Abrahamson, James                   | 235                    |
| Academic achievement                | 296                    |
| Academic freedom                    | 296                    |
| <i>Acanthaster planci</i> starfish  | 332                    |
| Accelerator, Heavy-ion              | 245                    |
| Acetylcholine sensitivity           | 68                     |
| Acetylputrescine                    | 342                    |
| Acid rain                           | 58,158,308,313         |
| Acidophilus milk                    | 118                    |
| Acquired immune deficiency syndrome |                        |
| See: AIDS                           |                        |
| Acuña, Mario                        | 363                    |
| Adams, Larry E.                     | 205                    |
| Adelberg, Edward                    | 155                    |
| Adelman, Leonard M.                 | 330                    |
| Adolescents                         |                        |
| See: Teenagers                      |                        |
| Adrenaline                          | 166                    |
| Aerodynamics                        |                        |
| Computational                       | 200                    |
| African soil dust                   | 376                    |
| Agard, David                        | 394                    |
| Agent Orange                        | 117,296                |
| Agent Orange suit                   | 296                    |
| Aggression, Childhood               | 360                    |
| Aggressiveness                      | 190                    |
| Aging, Cell                         | 390                    |
| Aging-related maculopathy           | 378                    |
| AIDS                                | 6,54,121,261           |
| AIDS-linked virus                   | 261                    |
| AIDS-linked virus genes             | 164                    |
| Aihara, H.                          | 9                      |
| Air pollution                       | 36,313                 |
| Aitken, R. J.                       | 46                     |
| Alarie, Yves                        | 372                    |
| Albin, E. F.                        | 244                    |
| Albrecht, Pierre                    | 372                    |
| Alcohol drinking                    | 267                    |
| Alcoholism                          | 181,196                |
| Aleksandrov, Vladimir               | 204                    |
| Alexander, Victor                   | 329                    |
| Algae eyespot                       | 295                    |
| Allen, Joseph P.                    | 326                    |
| Allen, William R.                   | 184                    |
| Allergic reactions                  | 102                    |
| Allergies, Environmental            | 90                     |
| Alloys, Selenium-tellurium          | 376                    |
| Alloys, Semiconductor               | 136                    |
| Alpha fetoprotein                   | 6                      |
| Alter, Harvey J.                    | 261                    |
| Alvarez, Luis                       | 151                    |
| Alzheimer's disease                 | 132,167,220,237,263    |
| Amblyopia                           | 312                    |
| Ambulances                          | 8,147                  |
| Amino acid, Eggshell                | 311                    |
| Amino-levalulinic acid              | 197                    |
| Amphitrite                          | 151                    |
| AMPTE                               | 52,117,197,353,362,371 |
| AMPTE comet                         | 353,362,371            |
| Amphotropic lateral sclerosis       | 246                    |
| Anderson, Lowell T.                 | 266                    |
| Anderson, William A.                | 397                    |
| André, Francis E.                   | 267                    |
| Andrews, George F.                  | 283                    |
| Androgen                            | 38                     |
| Androstenedione                     | 137                    |
| Angel dust                          | 6                      |
| Animal feed antibiotics             | 119                    |
| Animal language studies             | 346                    |
| Animal tracks, 310 million-year-old | 293                    |
| Animals, Farm                       | 229                    |
| Animals, Ocean floor                | 374                    |
| Annexstad, John                     | 244                    |
| Anorexia                            | 73                     |
| Antarctic air, Ancient              | 205                    |
| Antczak, Douglas F.                 | 184                    |
| Antel, Jack                         | 246                    |
| Antennae, Transplanted              |                        |
| moth                                | 281                    |
| Antibodies, Monoclonal              |                        |
| See: Monoclonal antibodies          |                        |
| Antibiotics, Animal feed            | 119                    |
| Anticavity vaccine                  | 182                    |
| Antihistamines                      | 172                    |
| Antimalarial antibody               | 184                    |
| Anxiety                             | 216                    |

|                           |     |
|---------------------------|-----|
| Apnea                     | 152 |
| Apples                    | 19  |
| Aquaspirillum             |     |
| <i>magnetotacticum</i>    | 87  |
| Archimedes' screw         |     |
| principle                 | 377 |
| Architecture machine      | 10  |
| Ariane rocket             | 86  |
| Arianespace, Inc.         | 86  |
| Arnold, James             | 264 |
| Arntz, Wolf E.            | 228 |
| Arsenic poisoning         | 9   |
| Arterial plaque           | 377 |
| Arteries, Artificial      | 351 |
| Arthritis                 | 277 |
| Asaro, Frank              | 151 |
| Asbestos                  | 36  |
| Aspartame                 | 60  |
| Asteroids                 | 279 |
| Asthmatics                | 297 |
| Athanas, Michael          | 149 |
| Athletes, Female          | 69  |
| Athletes, Injuries to     | 53  |
| Athletes, Olympic         | 72  |
| Atkov, Oleg               | 230 |
| Atmosphere, Oxygen        |     |
| content of                | 7   |
| Atmospheric circulation   | 376 |
| Atomic nuclei             | 9   |
| Atoms, Surface            | 237 |
| Atoms, Thin crystal       | 237 |
| Atrial natriuretic factor | 4   |
| Auriculism                | 4   |
| Autism                    | 266 |
| Avert                     | 267 |

|                           |            |
|---------------------------|------------|
| <b>B</b>                  |            |
| B-cell lymphoma           | 23         |
| B-cells                   | 388        |
| Babal, Laszlo             | 409        |
| Babirusa                  | 327        |
| Baby Doe rule             | 25,245     |
| Baby Doe                  | 276,325    |
| Bachman, John             | 8          |
| Bacteria                  | 328        |
| Bacteria, Fossil fuels    | 372        |
| Bacteria, Magnetic        | 87         |
| Bacteria, Methane-loving  | 329        |
| Bacteria, Oral of oldest  | 343        |
| Bacteria, Photo of oldest | 389        |
| Bacterial mating          | 68,154     |
| Bailey, James R.          | 68         |
| Bailey, Leonard L.        | 276,325    |
| Bailey, Mark              | 279        |
| Bain, Jerald              | 46         |
| Baird, Donald             | 293        |
| Baker, John D.            | 236        |
| Baking soda               | 360        |
| Bailhaus, William F. Jr.  | 202        |
| Bailou, Jonathan          | 232,251    |
| Banchoff, Thomas F.       | 284        |
| Bar-Yam, Yaneer           | 136        |
| Barber, Richard T.        | 228        |
| Barger, Keith E.          | 328        |
| Barger, Vernon            | 292        |
| Barletta, William         | 44         |
| Barley mildew             | 361        |
| Barnett, Scott            | 136        |
| Barrera, Ricardo          | 135        |
| Barrus, Jean              | 366        |
| Barton, Shelia C.         | 213        |
| Basket star               | 257,268    |
| Baskin, David             | 375        |
| Bass, George F.           | 359        |
| Bassett, William A.       | 164        |
| Batteries, Solid-state    | 326        |
| Bauer, Gerry              | 292        |
| Bazer, Fuller             | 327        |
| Beam weapons              | 172,642,99 |
| 115,126,195               |            |
| Beardsley, W. R.          | 88         |
| Beauchamp, Gary K.        | 137        |
| Beck, Louis               | 315        |
| Bee, Cancer inhibitors    | 390        |
| Beef, Waterbath-cooked    | 109        |
| Beggs, James              | 133        |
| Begleiter, Henri          | 196        |
| Behavior, Genetic         | 181        |
| Beyl, Graham              | 155        |
| Bellanti, Joseph          | 90         |
| Bellet, Dominique H.      | 6          |
| Belmont, Andrew           | 394        |
| Bentley, John L.          | 170        |

|                           |             |
|---------------------------|-------------|
| Benzodiazepines           | 357         |
| Berg, Howard C.           | 295         |
| Bernstein, Howard         | 153         |
| Best, Connie L.           | 153         |
| Beta Pictoris             | 244         |
| Bethanechol chloride      | 263         |
| Bever, Michael B.         | 141         |
| Bick, Katherine           | 132,167     |
| Biebach, Herbert          | 119         |
| Bikson, Tori K.           | 123         |
| Billrubin                 | 153         |
| Bills, Donald             | 109         |
| Binge eating              | 310         |
| Binnig, Gerd              | 101         |
| Biological control        | 149         |
| Biological warfare        |             |
| laboratory                | 397         |
| Biotechnology, Space      | 280         |
| Birds, Non-migrating      | 119         |
| Birth defects             | 117         |
| Blackbirds, Non-migrating | 119         |
| Blakemore, Richard P.     | 87          |
| Blepharospasm             | 351         |
| Blinking, Uncontrolled    | 351         |
| Block, John R.            | 381         |
| Blom, Ronald G.           | 187         |
| Blood clots               | 312,377     |
| Blood clotting factor     | 340         |
| Blood plasma              | 237         |
| Blood pressure regulator  | 4           |
| Blood thinner             | 153         |
| Blood typing              | 104         |
| Blood vessels, Artificial | 351         |
| Bloom, Joseph D.          | 219         |
| Blubber                   | 327         |
| Blue-purple dye, Ancient  | 148         |
| Blumenthal, James A.      | 73          |
| Blumenthal, Susan         | 266         |
| Blyth, Carl S.            | 53          |
| Boatner, Lynn A.          | 214         |
| Bodnar, Robert J.         | 313         |
| Bodner, Anne              | 164         |
| Bogoch, Samuel            | 184         |
| Bogue, Scott W.           | 341         |
| Bohoun, Claude            | 6           |
| Bombs, Biodegradable      | 8           |
| Bond, Gerard C.           | 328         |
| Bond, Nicholas A.         | 19          |
| Bone loss                 | 69          |
| Bonner, Yelena            | 118         |
| Borstrom, Georg           | 298         |
| Botstein, David           | 106,107,211 |
| Botulinum toxin           | 351         |
| Bourbon                   | 39          |
| Bowyer, C. Stuart         | 173         |
| Boyd, R. Dean             | 137         |
| Boyer, Herbert W.         | 150         |
| Bracher, Katherine        | 88          |
| Brain death               | 377         |
| Brain development, Fetal  | 247         |
| Brain glial cells         | 251         |
| Brain hemispheres         | 357         |
| Brain protein synthesis   | 220         |
| Brain receptor analysis   | 281         |
| Brain tumors              | 292,379     |
| Brains, 7000-year-old     | 388         |
| Brascha, Mario            | 296         |
| Branch, Andrea D.         | 92          |
| Brandt, Thomas D.         | 357         |
| Brazel, Anthony J.        | 309         |
| Breast cancer             | 60,341      |
| Breed, Carol              | 186         |
| Breeding, Captive         | 232,250,323 |
| Brennan, Margaret M.      | 281         |
| Brenner, M. Harvey        | 7           |
| Brickell, Ernest F.       | 330         |
| Bridges, Frank G.         | 133         |
| Bringsas, Ross            | 350         |
| Broadbent, Robert         | 315         |
| Bronze Age shipwreck      | 359         |
| Brookhaven Tandem/AGS     | 245         |
| Brooks, Howard            | 381         |
| Brown, Lester             | 212         |
| Brown, Norman R.          | 152         |
| Brown, Paul               | 301         |
| Brown, William E.         | 372         |
| Brownlee, Donald E.       | 7           |
| Broyhill, James           | 75          |
| Brugia malayi             | 151         |
| Brune, Peter              | 157         |
| Bubel, H. Curt            | 230         |
| Buchheim, Robert W.       | 340         |
| Buck, Ernest              | 109         |

|                              |                 |
|------------------------------|-----------------|
| <b>C</b>                     |                 |
| c-myc gene                   | 180             |
| Cabrera, Blas                | 9               |
| Cadien, Ken                  | 136             |
| Caffeine                     | 229             |
| Calendar                     |                 |
| Cushite-Borana               | 168,259         |
| Calendar, Maya               | 282             |
| Calhoun, Lawrence G.         | 152             |
| Cancer genes                 | 180             |
| Cancer inhibitors, Beef      | 390             |
| Cancer treatment             | 121             |
| Cancer, Blood cell           | 294             |
| Cancer, Brain                | 292             |
| Cancer, Breast               | 60,341          |
| Cancer, DNA probe            | 104             |
| Cancer, Eye                  | 184             |
| Cancer, Genetic diversity    | 23              |
| Cancer, Liver                | 6               |
| Cancer, Lung                 | 6,9,149         |
| Cancer, Power lines          | 3               |
| Cancer, Prostate             | 60              |
| Cancer-inhibiting genes      | 180             |
| Cann, Christopher E.         | 69              |
| Capsaicin                    | 132             |
| Car, Roberto                 | 350             |
| Carbon dioxide               |                 |
| Atmospheric                  | 156,309,376     |
| Carbon monoxide              | 8               |
| Carbon, Liquid               | 164             |
| Caribou                      | 279             |
| Carlin, James T.             | 172             |
| Carnegie Inst. of Washington | 5               |
| Carpenter, Russ              | 267             |
| Car, Robert H.               | 70              |
| Carrasco, Andrés E.          | 21              |
| Casani, John                 | 151             |
| Casagrainian system          | 280             |
| Cataract operations          | 329             |
| CCD                          |                 |
| See: Charge coupled devices  |                 |
| Cell division termination    | 390             |
| Cell theory                  | 392             |
| Cell's cytoplasm             | 392             |
| Cell's pericentriolar        | 392             |
| Cells, Living                | 101             |
| CERN                         | 292             |
| Chafee, John H.              | 71              |
| Chalcogenide device          | 121             |
| Chalermwat, Kashane          | 214             |
| Chambered nautilus           | 108             |
| Chance, Don                  | 20              |
| Chandler, Craig              | 204,259         |
| Chang, Stephen S.            | 172             |
| Chang, Tom                   | 137             |
| Chang, Wen F.                | 172             |
| Chaos theory                 | 19              |
| Chapman, Clark               | 151             |
| Charge coupled devices       | 22              |
| Chau, Nam-Hai                | 22              |
| Chemical dumps               | 313             |
| Chemical hazards             | 46              |
| Chemical weapon stockpiles   | 340             |
| Chemical weapons             | 89              |
| Chemicals, Toxic             | 329             |
| Chestnut, Donald R. Jr.      | 293             |
| Chewing gum, Nicotine        | 8               |
| Chichester, Clinton          | 230             |
| Chimeric model               | 237             |
| Chimpanzees                  | 121,261,346,360 |
| China                        | 89              |
| Chinchillas                  | 108             |
| Chironomid midge             | 151             |
| New species                  | 55              |
| Chlamydomonas                | 89,295          |
| Chloracne                    | 296             |
| Chlorinated Pesticide        |                 |
| Screening Test               | 329             |

|                                  |             |
|----------------------------------|-------------|
| Chlorinated-hydrocarbon solvents | 329         |
| Cholesterol                      | 118,390     |
| Chor, Benny                      | 331         |
| Chou, C. K.                      | 103         |
| Chromosomal translocations       | 70          |
| Chromosome structure             | 394         |
| Cimetidine                       | 185         |
| Citrus canker                    | 369,380     |
| Civerolo, Edwin                  | 380         |
| Clam, Asiatic                    | 214         |
| Clapp, Nicholas                  | 187         |
| Clayton, Robert                  | 70,264      |
| Clegg, James                     | 167         |
| Clementi, Enrico                 | 202         |
| Clewett, Don B.                  | 68          |
| Climatic droplet keratopathy     | 329         |
| Clonidine                        | 310,379     |
| Clydesdale, Fergus               | 109         |
| Coal-burning system              | 131         |
| Coale, Ansley                    | 89          |
| Cocaine smoking                  | 37          |
| Cochlear implant                 | 377         |
| Coconut cadang-cadang viroid     | 83,91       |
| Coe, Robert S.                   | 341         |
| Coggin, Joseph Jr.               | 93          |
| Coggioli, A.                     | 61          |
| Cohen, Marvin                    | 101,116,349 |
| Cohen, Stanley N.                | 150         |
| Cohen, Toba J.                   | 25          |
| Cohn, Theodore L.                | 236         |
| Colditz, Graham A.               | 351         |
| Colds, Treated tissues           |             |
| for                              | 267,318     |
| Coleman, Jackson                 | 215         |
| Collins, Allan                   | 135         |
| Colton, Ted                      | 341         |
| Comet Halley                     | 88          |
| Comet, Artificial                | 353,362,371 |
| Computer conferences             | 122         |
| Computer crime                   | 99          |
| Computer graphics                | 200         |
| Computer graphics, 3D            | 324,325     |
| Computer image processing        | 237         |
| Computer searches                | 170         |
| Computer simulations             | 200         |
| Computer, Architecture           | 10,51       |
| Computer-teaching programs       | 135         |
| Computer/hypernatality           | 205         |
| Computerized tomography          |             |
| See: CT scans                    |             |
| Computers, Home                  | 185,259     |
| Computers, Human factor          | 122,211     |
| Computers, Supercomputers        | 193,200     |
| Computing, Large-scale           | 200         |
| Conferences, Computer            | 122         |
| Confinement                      | 35          |
| Conroy, Glenn C.                 | 260         |
| Continent, Super                 | 328         |
| Continents, Evolution of         | 364         |
| Contraceptive vaccine            | 38,46       |
| Contraceptive, Male              | 60          |
| Cooper, John                     | 308         |
| Corals                           | 280,321,332 |
| <i>Corbicula fluminea</i>        | 214         |
| Coriolis effect                  | 19          |
| Corn roots                       | 373         |
| Corn, Gene-spliced               | 61          |
| Cornea degeneration              | 329         |
| Corwin, Emil                     | 60          |
| Cosmic spheres                   | 7           |
| Cottingham, J. G.                | 181         |
| Counseling                       | 109         |
| Cox, Richard H.                  | 72          |
| Cranberries                      | 308         |
| Cranston, Alan                   | 25          |
| Craving                          | 310         |
| Cresote                          | 46          |
| CREST                            | 314         |
| Cretaceous-Tertiary boundary     | 216         |
| Crime                            | 343         |
| Crime victims, Female            | 153         |
| Crippen, Robert E.               | 187         |
| Crop roots                       | 373         |
| Crops, Salt-tolerant             | 314         |
| Crosier, John R.                 | 72          |
| Crowding                         | 35          |

|                           |         |                        |         |                            |             |                                   |              |                                   |             |
|---------------------------|---------|------------------------|---------|----------------------------|-------------|-----------------------------------|--------------|-----------------------------------|-------------|
| Crowe, John H.            | 167     | Drescher, Dennis       | 253     | Eye herpes                 | 230         | Gas leak, India                   | 372          | Gusella, James                    | 107         |
| Crown of thorns           |         | Drever, Ronald         | 77      | Eye surgery                | 312         | Gasoline, Lead standard           | 71           | Gutak, Barbara A.                 | 123         |
| starfish                  | 321,332 | Drinkwater, Barbara L. | 69      | Eye, Dry                   | 236         | Gavaler, Judith                   | 239          | Guy, Arthur W.                    | 103,296     |
| Crummett, Warren          | 297     | Droplets               | 361     | Eye, Lazy                  | 312         | Gazelles, Speke's                 | 350          | Gymnastics                        | 53          |
| Cryptography, Public-key  | 330     | Droz, R. J.            | 73      | Eyes                       | 329,351,378 | Geer, Stephen                     | 292          | Gypsum, Waste                     | 172         |
| Cryptosystems, Public-key | 330     | Drug additions         | 310     | Eyes, Crossed              | 236         | Gehring, Walter J.                | 21           |                                   |             |
| Crystal Ball detector     | 84      | Drug resistance test   | 104     |                            |             | Gene dropping                     | 232          |                                   |             |
| Crystal surface           |         | Drug resistance, Human | 119     |                            |             | Gene engineering                  |              |                                   |             |
| structure                 | 101,226 | Drug use, Sports       |         |                            |             | product patent                    | 150          |                                   |             |
| Csuri, Charles A.         | 325     | competition            | 72      |                            |             | Gene therapy                      | 278          | Haber, Howard                     | 292         |
| CT scans                  | 260,377 | Drug use, Teen         | 73      | Fabric pseudomorphs        | 328         | Gene transfer, Interspecies       | 278          | Haerendel, Gerhard                | 363         |
| Curran, James W.          | 261     | Dry-life organisms     | 167     | Factor VIII                | 340         | Gene transfer, Plant              | 22           | Hagelhorn, Thomas                 | 275         |
| Currie, Douglas           | 5       | Drug-proving Ground    | 397     | Fairbourne, William T.     | 397         | Gene-splice field                 |              | Hair-clogged drain                | 137         |
| Curtiss, Roy              | 182     | Dump sites, Chemical   | 313     | Family                     | 185         | tests                             | 35,55,61,397 | Hall effect, Fractional           | 116,226     |
| Cushite-Borana            |         | Duren, Peter L.        | 165     | Faraday cages              | 121         | Gene-splice pesticides            | 229          | Hall, Don                         | 117         |
| calendar                  | 168,339 | Durenberger, Dave      | 294     | Farrell, Philip            | 85          | Genes, Cancer-inhibiting          | 180          | Hall, Lawrence                    | 292         |
| Cystic fibrosis           | 85      | Durham, Anthony        | 198     | Fat, Dietary               | 390         | Genetic engineering suit          | 229          | Hall, Timothy C.                  | 22          |
| Czuczwa, Jean M.          | 297     | Durkee, Ellen          | 25      | Fauci, Anthony S.          | 261         | Genetic engineering, Pest control | 373          | Halperin, David                   | 266         |
|                           |         | Dwan, John             | 342     | Faye, Eleanor E.           | 379         | Genetic engineering, Plants       | 22           | Halvorson, Ardel                  | 301         |
|                           |         | Dye, Blue-purple       | 148,318 | Feely, Richard A.          | 376         | Gareth, Robert J.                 | 287          | Halvorson, Harlyn O.              | 155         |
|                           |         | Dyes, Roman Britain    | 153     | Female crime victims       | 153         | Gershon, Elliot S.                | 68           | Hamburger, Cancer                 |             |
|                           |         | Dynorphin              | 375     | Ferguson, James            | 381         | Gershon, Nahum                    | 392          | Inhibitors                        | 390         |
|                           |         | Dyott, Thomas          | 263     | Fertilization antigen      | 38          | Giacquinta, Joseph B.             | 185          | Hammer, Ronald                    | 23          |
|                           |         |                        |         | Fertilization, in vitro    | 137         | Gibbons, John H.                  | 58           | Hammersmith, Sue Kiefer           | 198         |
|                           |         |                        |         | Fetus                      | 266,377     | Gille, John C.                    | 205          | Hammond, Keith                    | 85          |
|                           |         |                        |         | Fetus, Nervous system      | 247         | Gillette, Marianne                | 132          | Hans, Valerie P.                  | 219         |
|                           |         |                        |         | Fib, Jorgen                | 254         | Gilliland, Stanley                | 118          | Hanson, Robert D.                 | 134         |
|                           |         |                        |         | Fiber, Transparent optical | 166         | Gillmor, Steve                    | 397          | Harbaugh, Robert E.               | 263         |
|                           |         |                        |         | Fild, Tiffany              | 216         | Gilman, Donald L.                 | 356          | Harbo, Samuel                     | 279         |
|                           |         |                        |         | Firestone, Raymond A.      | 121         | Gilman, Fred                      | 84           | Hardy, Mark A.                    | 276         |
|                           |         |                        |         | Fisher, Anna L.            | 326         | Gilmer, George H.                 | 200          | Hare, Edward                      | 311         |
|                           |         |                        |         | Fisher, Jack C.            | 102         | Glotto probe/Comet Halley         | 86           | Harnden, Frank R. Jr.             | 196         |
|                           |         |                        |         | Fits, Michael A.           | 366         | Girard, B.                        | 391          | Harpischord wire                  | 231,371     |
|                           |         |                        |         | Fixer, James F.            | 139         | Gladue, Brian                     | 198          | Harrah, Larry A.                  | 310         |
|                           |         |                        |         | Floiland                   | 284,355     | Glass ingots, Trade in            | 359          | Harrison, A. B.                   | 7           |
|                           |         |                        |         | Fleischer, James F.        | 376         | Glass, Borosilicate               | 214          | Haseltine, William A.             | 54          |
|                           |         |                        |         | Fletcher, James            | 27          | Glass, Lead-iron phosphate        | 214          | Hatch, Orrin                      | 25          |
|                           |         |                        |         | Flicker, Herbert           | 44          | Glass, Richard M.                 | 29           | Hatzes, Artie                     | 133         |
|                           |         |                        |         | Flock, Ake                 | 253         | Glassman, Alexander               | 310          | Hawkins, Irvin                    | 377         |
|                           |         |                        |         | Florida Escarpment         | 374         | Glaucoma                          | 215,236,351  | Hawley, Steven A.                 | 150         |
|                           |         |                        |         | Florio, James              | 8           | Glaucoma test                     | 329          | Hayakawa, Hisayo                  | 265         |
|                           |         |                        |         | Fluid inclusions           | 313,328     | Glial cells, Brain                | 281          | Hayes, William                    | 311         |
|                           |         |                        |         | Fluorescent lamps          | 262         | Glikson, Miryam                   | 372,389      | Hazardous wastes                  |             |
|                           |         |                        |         | Fluorine-doped glass       | 166         | Glions                            | 136          | See: Wastes, Hazardous            |             |
|                           |         |                        |         | Fluphenazine, Low doses    | 297         | Glycoproteins                     | 46           | HDL levels                        | 38          |
|                           |         |                        |         | Food poisoning, Egg        | 137         | Goetzl, Edward J.                 | 118          | Head Start                        | 185         |
|                           |         |                        |         | Foon, Kenneth              | 294         | Golay, Michael W.                 | 361          | Health problems                   | 7           |
|                           |         |                        |         | Foose, Thomas              | 235         | Gold plating                      | 24           | Healy, Paul E.                    | 55          |
|                           |         |                        |         | Football                   | 53          | Gold, Jon S.                      | 164          | Hearing                           | 241,252,307 |
|                           |         |                        |         | Forest fires, Nuclear      | 204,259     | Gold, Mark S.                     | 310          | Hearing aids                      | 377         |
|                           |         |                        |         | Forest, Mangrove           | 186         | Gold, Steven                      | 359          | Hearing loss                      | 25          |
|                           |         |                        |         | Forberg, Bengt             | 203         | Goldberg, Erwin                   | 38           | Heart disease                     | 109,351     |
|                           |         |                        |         | Forward, Robert L.         | 76          | Golden lion tamarins              | 232,389      | Heart disease, Athletes           | 38          |
|                           |         |                        |         | Fossil fuels bacteria      | 372         | Goldstein, Bernard                | 71           | Heart disease, Cholesterol        | 390         |
|                           |         |                        |         | Fossil, 18 million year    |             | Good, I. J.                       | 3            | Heart rejection detection         | 342         |
|                           |         |                        |         | ape-like                   | 135         | Goodenough, Ursula                | 89           | Heart transplant, Baboon-to-human | 276,325     |
|                           |         |                        |         | Fossil, Homo erectus       | 320         | Goodway, Martha                   | 371          | Heart, Artificial                 | 342         |
|                           |         |                        |         | Fossils                    | 392         | Gorski, Roger                     | 23           | Heath, Donald F.                  | 205         |
|                           |         |                        |         | Fossils, Brain             | 388         | Gossard, Arthur C.                | 16           | Hecht, Alan                       | 182         |
|                           |         |                        |         | Fossils, Mammals           | 213         | Gossypol                          | 60           | Hecht, Jeff                       | 42          |
|                           |         |                        |         | Fossils, Rock-filled       | 260         | Gottlieb, Allan E.                | 56           | Heier, A.                         | 60          |
|                           |         |                        |         | Fossils, Sedimentary rock  | 24          | Goulardis, Niki                   | 185          | Heimlich, Henry J.                | 308         |
|                           |         |                        |         | Foster, Kenneth W.         | 295         | Graham, David Y.                  | 56           | Helfand, David                    | 196         |
|                           |         |                        |         | Four Shooter/4Shooter      | 22          | Graham, Ronald L.                 | 331          | Heliopause                        | 277         |
|                           |         |                        |         | Fox, Michael W.            | 229,278     | Graph Theory                      | 10           | Hellman, Martin E.                | 330         |
|                           |         |                        |         | Fractal geometry           | 200         | Graphite                          | 164          | Hellman, Ronald                   | 198         |
|                           |         |                        |         | Francis, Donald            | 261         | Gratwick, William                 | 57           | Helveston, Eugene M.              | 236         |
|                           |         |                        |         | Frankie, Uta               | 293         | Gravitation waves                 | 76           | Hendler, Gordon L.                | 268         |
|                           |         |                        |         | Frank, Eddie               | 168         | Gray, Colin                       | 28           | Hendley, J. Owen                  | 267         |
|                           |         |                        |         | Frank, Jerome D.           | 29          | Green, Howard                     | 102          | Henker, Barbara                   | 152         |
|                           |         |                        |         | Frankel, Richard B.        | 87          | Green, Richard                    | 198          | Heparin                           | 153         |
|                           |         |                        |         | Fraser, Scott E.           | 264         | Greenberg, Robert                 | 341          | Hepatitis, Non-A, non-B           | 287,360     |
|                           |         |                        |         | Free-electron lasers       | 237,359     | Greene, Joseph                    | 136          | Herberman, Ronald                 | 294         |
|                           |         |                        |         | Freebase cocaine use       | 37          | Greenhouse effect                 | 309,396      | Herbicide, Sunlight-using         | 197,291     |
|                           |         |                        |         | Freedman, Daniel X.        | 212         | Greenwald, Gilbert                | 276          | Herbst, Arthur L.                 | 341         |
|                           |         |                        |         | French fries               | 172         | Gregory, Peter A.                 | 200          | Hercules X-1                      | 7           |
|                           |         |                        |         | Freund, Peter              | 281         | Griffin, Sue                      | 221          | Hereditary disorders              | 104         |
|                           |         |                        |         | Frey, Kirk A.              | 109         | Griffiths, Mark                   | 71,358       | Herman, Louis M.                  | 346         |
|                           |         |                        |         | Friedman, Meyer            | 59          | Grollier, Maurice                 | 187          | Heroin use                        | 343         |
|                           |         |                        |         | Friedman, Robert M.        | 361         | Grossbard, Elliott B.             | 312          | Herpes, Eye                       | 230         |
|                           |         |                        |         | Fritzche, Hellmut          | 361         | Groundwater                       | 60           | Herpes, Genital                   | 267         |
|                           |         |                        |         | Fruit flies                | 89          | contamination                     | 294,329,379  | Herpes, Oral                      | 267         |
|                           |         |                        |         | Fuels, Fossil              | 372         | Groundwater depletion             | 397          | Herring, Malcolm                  | 351         |
|                           |         |                        |         | Fukuoka, T.                | 264         | Grove, Jack S.                    | 228          | Higgs particle                    | 84          |
|                           |         |                        |         | Fusion, Laser              | 73          | Growth hormone                    | 137,266      | High-voltage electron microscopy  | 385,392     |
|                           |         |                        |         |                            |             | Growth hormone gene               |              | Hildebrand, John G.               | 281         |
|                           |         |                        |         |                            |             | transfer                          | 229          | Hills, Jack G.                    | 279         |
|                           |         |                        |         |                            |             | Gruen, Dieter                     | 237          | Hiltz, Starr Roxanne              | 123         |
|                           |         |                        |         |                            |             | GTF anticavity vaccine            | 182          | Hines, Roy                        | 293         |
|                           |         |                        |         |                            |             | Gudeman, Jon E.                   | 216          | Hippocampus, Alzheimer's          |             |
|                           |         |                        |         |                            |             | Gug, Remy                         | 371          | disease                           | 167         |
|                           |         |                        |         |                            |             | Gunn, James                       | 22           | Hirschfeld, Tomas                 | 86          |
|                           |         |                        |         |                            |             | Gunderson, John                   | 388          | Hirschhorn, Joel S.               | 71          |
|                           |         |                        |         |                            |             | Gurton, James D.                  | 203          | Histamine                         | 102         |
|                           |         |                        |         |                            |             | Gurnett, Donald A.                | 277          |                                   |             |
|                           |         |                        |         |                            |             | Gurney, Mark                      | 246          |                                   |             |
|                           |         |                        |         |                            |             |                                   |              |                                   |             |



Northrup, John . . . . . 349  
Norwood, William I. . . . . 276  
Nuclear data, Unclassified . . . 183  
Nuclear forest fires . . . . . 204,259  
Nuclear power plant . . . . . 296  
Nuclear winter . . . . . 182,204,397  
Nuclear-powered X-ray  
weapon . . . . . 42  
Nurnberger, John I. Jr. . . . . 68  
Nussenzweig, Ruth . . . . . 87

## O

O'Brien, Allison . . . . . 205  
O'Malley, Patrick M. . . . . 73  
Observatories, Mt. Wilson  
& Lick . . . . . 108  
Observatory, Mauna Loa . . . . . 88  
Observatory, MIRA . . . . . 37  
Obsidian . . . . . 55  
Ocean alkalinity . . . . . 376  
Ocean crust . . . . . 396  
Ocean floor animals . . . . . 374  
Ocean floor vents . . . . . 246,374  
Ocular herpes . . . . . 230  
Oodone, Pier . . . . . 136  
Odell, Scott . . . . . 371  
Odlyzko, Andrew . . . . . 331  
Odor recognition . . . . . 137  
Offenbacher, Steven . . . . . 343  
Oil prospecting . . . . . 73,313,372  
Okabe, Masami . . . . . 295  
Olfactory system, Fetal . . . . . 247  
Oliver, Jack . . . . . 364  
Olmer, Lionel H. . . . . 358  
Olmstead, Marjorie A. . . . . 350  
Olszewski, Paula . . . . . 105  
Olympic athletes . . . . . 72  
Olympic Scientific  
Congress . . . . . 53,72  
Olympics, Russian boycott . . . . 147  
Oncogenes . . . . . 70,104,180  
Oort cloud . . . . . 215  
Optical fiber  
communications . . . . . 166  
Optical klystron . . . . . 391  
Oral bacteria . . . . . 343  
Oranges, Citrus canker . . . . . 369,380  
Orford, K. J. . . . . 37  
Ornithine transcarbamylase  
deficiency . . . . . 293  
Orr, William . . . . . 152  
Orth, Charles . . . . . 216  
Orthon, Lisa S. . . . . 327  
Oshinski, John . . . . . 74  
Ovary/tube transplant . . . . . 276  
Owen, Robert L. . . . . 73  
Owens, Robert . . . . . 93  
Ozone, Stratospheric . . . . . 205

## P

P. fluorescens, Gene-spliced . . . 373  
Paffenbarger, Ralph J. Jr. . . . . 139  
Pain . . . . . 139  
Panasiluk, Oksana . . . . . 109  
Pandas . . . . . 108  
Panitch, Hillel . . . . . 231  
Pantelides, Sokrates T. . . . . 350  
Pariza, Michael W. . . . . 390  
Parloff, Morris . . . . . 29  
Particle physics, "Desert" . . . . 136  
Particle spin . . . . . 12  
Particle-beam weapons . . . . . 26,33,42  
Patel, Nayana . . . . . 295  
Patent, Gene engineering  
product . . . . . 150  
Patterson, Robert E. . . . . 280  
Pauli, Charles K. . . . . 374  
Pawson, David L. . . . . 268  
Payne, Keith . . . . . 28  
PCBs . . . . . 313  
PCP . . . . . 6  
Pedersen, Patricia E. . . . . 247  
Peek, Harmon V. . . . . 102  
Pennypacker, Carl . . . . . 134,196  
Pensak, David A. . . . . 201  
Pentachlorophenol . . . . . 46  
Peonies . . . . . 49,56  
Peonies, Tree . . . . . 163  
Pepper, Black . . . . . 132  
Peppers, Hot . . . . . 132  
Percival, Robert . . . . . 358  
Perfumes . . . . . 172  
Periodontal disease . . . . . 343  
Perrin, D. G. . . . . 165  
Perry, Malcolm S. . . . . 13  
Personality, Type A . . . . . 109  
Pert, Candace B. . . . . 149,357  
Pertussis vaccine . . . . . 167

Pest control, Gene-spliced . . . 373  
Pesticide exposures,  
Low-dose . . . . . 329  
Pesticide resistance . . . . . 361  
Pesticide, Natural . . . . . 229  
Pesticides . . . . . 36  
Pesticides, Chemical . . . . . 25,372  
Pesticides, Gene-splice . . . . . 229  
PET . . . . . 281  
Peterson, Sandra K. . . . . 183  
Petroff, Pierre . . . . . 101  
Petroff, Yves . . . . . 350  
Phencyclidine . . . . . 6  
Phosphogypsum . . . . . 172  
Photoconductivity,  
Persistent . . . . . 361  
Photorealist . . . . . 310  
Physics "desert" . . . . . 136  
Physics, Solid-state . . . . . 349  
Phyto-estrogens . . . . . 39  
Pierce, William . . . . . 342  
Pig, Ruminant-like . . . . . 327  
Piglits . . . . . 137  
Pilkonis, Paul A. . . . . 29  
Pillard, Richard C. . . . . 199  
Planet, Extra-solar . . . . . 373  
Plant disease tests . . . . . 93  
Plant productivity,  
Increased . . . . . 309  
Plant regrowth . . . . . 216  
Plant viroids . . . . . 91  
Plants, Salt stress . . . . . 317  
Plapp, Frederick W. . . . . 361  
Plasma etching . . . . . 140,222  
Plastics, Automobile . . . . . 129,140  
Platinum nugget . . . . . 7  
Plutonium . . . . . 216  
Poisonings, Third World . . . . . 25  
Pollution . . . . . 8  
Polychlorinated biphenyls . . . . 313  
Polymer inks . . . . . 24  
Polypyrrole . . . . . 198  
Polysilane copolymer . . . . . 310  
Pongratz, Morris B. . . . . 363  
Population trends, Chinese . . . . 89  
Porphyria cutanea tarda . . . . . 296  
Porter, Bob . . . . . 75  
Porter, Keith . . . . . 392  
Porter, Sandra . . . . . 397  
Potato beetle, Colorado . . . . . 149  
Potato spindle-tuber  
disease . . . . . 93  
Potatoes, French fried . . . . . 172  
Potter, Michael . . . . . 308  
Power Lines/Cancer . . . . . 3  
Poynter, Robert L. . . . . 277  
Praising mantis . . . . . 281  
Pre-Columbian town,  
Peru . . . . . 186  
Pregnancy . . . . . 267  
Pregnancy predictor . . . . . 357  
Premack, David . . . . . 348  
Premature babies,  
Retinopathy in . . . . . 351  
Prepost, Richard . . . . . 136  
Prezant, Robert S. . . . . 214  
Price, Courtney . . . . . 71  
Price, Harvey S. . . . . 150  
Prince, Alfred . . . . . 360  
Printed circuits . . . . . 24,310  
Probst, Ronald G. . . . . 373  
Proconsul africanus . . . . . 376  
Prospero, Joseph M. . . . . 135  
Protein synthesis, Brain . . . . . 220  
Proterozoic era . . . . . 328  
Proton spin . . . . . 5  
Proxmire, William . . . . . 45  
Pseudomonas syringae . . . . . 263  
Pseudopotential approach . . . . 349  
Psychotherapy . . . . . 29,83  
Psychotherapy,  
Schizophrenia . . . . . 388  
Pteropod shells . . . . . 376  
Pulsar, Hercules X-1 . . . . . 7  
Pulsar, Visible . . . . . 196  
Punishment, Corporal . . . . . 24  
Purdy, Michael . . . . . 365  
Pyrgon . . . . . 12

## Q

Quantum chromodynamics . . . . 5  
Quark, Top/t . . . . . 348  
Quarks . . . . . 136  
Quarks, Free . . . . . 9  
Quarks, Naming . . . . . 67  
Quasiparticles . . . . . 116  
Quay, Herbert C. . . . . 152  
Quinnan, Gerald . . . . . 327

## R

Rabies vaccine . . . . . 327  
Radar, Dual-  
polarization . . . . . 198,307  
Radar, Spaceborne . . . . . 177,186,245  
Radar, Weather . . . . . 198  
Radford, Edward . . . . . 9  
Radial keratotomy . . . . . 312  
Radiation belts, Van  
Allen . . . . . 52,117,197  
Radiation detector, Soils . . . . . 73  
Radioactive waste . . . . . 214  
Radon cancer risk . . . . . 9  
Raisbeck, Liz . . . . . 25  
Ralls, Katherine . . . . . 232  
Ramage, Tom . . . . . 316  
Rape victims . . . . . 153  
Rash, Childhood . . . . . 102  
Rasmussen, Reinhold . . . . . 396  
Rauschenbach, Hans . . . . . 280  
Rawlins, Stephen . . . . . 298,301  
Raye, Carol L. . . . . 173  
Read, Bruce . . . . . 250  
Reagan, Ronald . . . . . 26,295  
Rebeiz, Constantin A. . . . . 197  
Recession . . . . . 7  
Recombinant DNA  
regulations . . . . . 278  
Reef recovery . . . . . 321,332  
Regier, Darrel A. . . . . 212  
Reilly, William . . . . . 8,25  
Reimers, Niels . . . . . 150  
Rejection detection, Heart . . . . . 342  
Relaxin . . . . . 20  
Renard, K. G. St. Clair . . . . . 9  
Renoux, Gerald . . . . . 357  
Resnik, Judith A. . . . . 150  
Resnick's macula . . . . . 378  
Retinoblastoma . . . . . 184  
Retinitis, Premature  
babies . . . . . 351  
Retroviruses . . . . . 54  
Review of the Year . . . . . 400  
RFLP technique . . . . . 107  
Rhoades, James . . . . . 300,314  
Rhodopsin . . . . . 295  
Ribonuclease . . . . . 132  
Richards, Douglas G. . . . . 346  
Richardson, Stephen H. . . . . 54  
Richter, Burton . . . . . 84  
Rifkin, Jeremy . . . . . 35,55,229,  
263,278,397  
Rift Valley fever . . . . . 156  
Rips, Lance J. . . . . 152  
Ris, Hans . . . . . 395  
Risk, Michael . . . . . 280  
Risley, John S. . . . . 54  
River levels . . . . . 309  
Rivest, Ronald L. . . . . 330  
RNA, Naked . . . . . 91  
Roasts . . . . . 172  
Roasts, Waterbath-cooked . . . . 109  
Robbins, Lawrence H. . . . . 168,259  
Roberts, David W. . . . . 263  
Roberts, Jim . . . . . 220  
Robinson, J. H. . . . . 22  
Roblin, Dick . . . . . 137  
Rodeck, C. H. . . . . 105  
Rogers, Jeffrey L. . . . . 219  
Rogers, Sherry . . . . . 90  
Rogula, James . . . . . 360  
Roman Britain dyes . . . . . 153  
Roman ruins, Curium . . . . . 100  
Rona, Peter . . . . . 246  
Roper, Stephen . . . . . 393  
Rose, Christopher . . . . . 280  
Rose, Terry L. . . . . 24  
Rosen, Mordcael . . . . . 278  
Rosenbaum, Arthur L. . . . . 351  
Rosenberg, Leon . . . . . 293  
Rosenman, Ray H. . . . . 109  
Ross, H. . . . . 61  
Rotavirus . . . . . 267  
Rothkopf, Ernst . . . . . 136  
Rothland, F. Sherwood . . . . . 135  
Rowland, Lewis P. . . . . 396  
Rubber nipples, Baby . . . . . 172  
Rubbia, Carlo . . . . . 21,136,262,292  
Ruckelshaus, William D. . . . . 71,358  
Rucker, Rudy . . . . . 285  
Ruff, Michael R. . . . . 149,357  
Rumbaugh, Duane M. . . . . 348  
Runner's high . . . . . 53  
Runners, Compulsive . . . . . 73  
Running . . . . . 138  
Russell, Diane H. . . . . 342  
Russell, Michael . . . . . 102  
Russell, Milton . . . . . 36

Rutishauser, Urs . . . . . 264  
Ryder, Oliver . . . . . 108  
Sagan, Carl . . . . . 182  
Sager, Ruth . . . . . 89  
Sagnella, G. A. . . . . 4  
Sahara Desert . . . . . 186  
SAIDS . . . . . 261  
Saito, Koichi . . . . . 9  
Sajdel-Sulkowska,  
Elizabeth M. . . . . 132  
Sakaki, Hiroyuki . . . . . 116  
Sakharov, Andrei . . . . . 218  
Sales, Brian C. . . . . 114  
Saline seep . . . . . 301  
Salmonella test . . . . . 104  
Salt-tolerant crops . . . . . 314  
Salts, Effect on  
soils . . . . . 289,298,305,314  
Salyut 7 space station . . . . . 230  
Samet, Jonathan . . . . . 9  
Sampson, Hugh A. . . . . 102  
San Joaquin Valley . . . . . 298  
Sandage, Allan . . . . . 5  
Sanes, Joshua R. . . . . 264  
Saranak, Jurepan . . . . . 295  
SARISA . . . . . 237  
Sassaman, Virginia . . . . . 60  
Satellite, Anik D2 . . . . . 326  
Satellite, EUV Explorer . . . . . 173  
Satellite, GOES-6 . . . . . 86  
Satellite, Palapa . . . . . 117,326  
Satellite, SBS-4 . . . . . 150  
Satellite, Syncom IV-I . . . . . 326  
Satellite, Telstar 3 . . . . . 150  
Satellite, Westar VI . . . . . 117,326  
Satellites, Retrieval of . . . . . 117,326  
Saturn's rings . . . . . 133  
Saulson, Peter . . . . . 77  
Scanning laser  
ophthalmoscope . . . . . 378  
Searf, Frederick L. . . . . 277  
Schaffer, David B. . . . . 351  
Schizophrenia . . . . . 297,388  
Schmitt, Roland W. . . . . 203  
Schmitt, Roman A. . . . . 264  
Schneiderman, Anne M. . . . . 281  
Schnoll, Sidney . . . . . 37  
School equality . . . . . 185  
School transferring . . . . . 216  
Schools, Physical punishment  
in . . . . . 24  
Schouten, Hans . . . . . 324  
Schroeder, Robert . . . . . 149  
Schroeder, William J. . . . . 342  
Schuckit, Marc A. . . . . 196  
Schultz, Jane . . . . . 276  
Schusterman, Ron . . . . . 348  
Schwader, J. . . . . 205  
Schwartz, William J. . . . . 266  
Scientific communications . . . . 358  
Scientific data, Sensitive . . . . . 183  
Scientist, Soviet . . . . . 118  
Scotoma . . . . . 378  
Scott, Alan B. . . . . 351  
Scott, David R. . . . . 324  
Scott, Matthew P. . . . . 21  
Scrap, Plastic . . . . . 140  
Sea lilies . . . . . 268  
Sea lions . . . . . 346  
Sea urchins . . . . . 268  
Seal, Ulysses S. . . . . 235  
Search trees . . . . . 170  
Seabook, Thomas A. . . . . 348  
Sedat, John . . . . . 394  
Seigneur, Christian . . . . . 308  
Seismic reflections . . . . . 364  
Seismology, Molecular . . . . . 200  
Selby, James W. . . . . 152  
Semiconductors . . . . . 292  
Selenium-tellurium alloys . . . . 376  
Sella, Thomas A. . . . . 198  
Semiconductor alloys . . . . . 136  
Semiconductor superlattice . . . . 361  
Semiconductor switch . . . . . 166  
Semiconductors . . . . . 101,349  
Sen, Nrisinha . . . . . 172  
Senile macular  
degeneration . . . . . 378  
Serotonin, Brain . . . . . 360  
Sessler, Andrew M. . . . . 359  
Seto, Belinda . . . . . 287  
Seward, Frederick D. . . . . 196  
Sex abuse . . . . . 185  
Sex determination . . . . . 104  
Sex differences, Rat brain . . . . . 23  
Sex pheromones . . . . . 68  
Sex, Bacterial . . . . . 154

Sex, Origin/evolution  
of . . . . . 145,154,242  
Sexual aggression . . . . . 46  
Shamir, Adi . . . . . 330  
Shannon, Michael . . . . . 316  
Sharks . . . . . 327  
Shatz, Carla J. . . . . 247  
Shavelson, Richard . . . . . 135  
Shaw, Michael . . . . . 325  
Sheldrick, Mike . . . . . 121  
Shellfish, Murex . . . . . 148  
Shepherd, Gordon M. . . . . 247  
Shepherd, John C. W. . . . . 21  
Sherby, Oleg . . . . . 24  
Sherman, Terri A. . . . . 393  
Shevell, Steven K. . . . . 152  
Shiga-like toxin . . . . . 205  
Shippman, Sarah . . . . . 312  
Shipwreck, Bronze Age . . . . . 359  
Shore, John W. . . . . 351  
Shore, Miles F. . . . . 216  
Shriver, Duward F. . . . . 326  
Sibley, Lucy R. . . . . 328  
Sickle cell anemia . . . . . 104  
SIDS . . . . . 152,165  
Siegel, Jane . . . . . 122  
Sieviers, Albert . . . . . 4  
Silber, Sherman . . . . . 276  
Silicon . . . . . 136,349  
Silks, Painted . . . . . 199  
Silver, Jerry . . . . . 264  
Silverman, Michael . . . . . 61  
Sim, Gek Kee . . . . . 388  
Simmons, F. Blair . . . . . 252,377  
Singer, Robert B. . . . . 357  
Singleton, George . . . . . 25  
SIR-B Spaceborne  
radar . . . . . 177,186,247  
Skelton, Maruta . . . . . 199  
Skin, Artificial . . . . . 102  
Skinner, John . . . . . 60  
Sklar, Jeffrey . . . . . 23  
Skulls, 7,000-year-old . . . . . 388  
Sky survey, Extreme  
ultraviolet . . . . . 173  
Slansky, Richard . . . . . 14  
Sleator, Daniel D. . . . . 170  
Sleep, Infant . . . . . 360  
Small-cell lung carcinomas . . . . 149  
Smiling, Infant . . . . . 153  
Smith, Allen . . . . . 279  
Smith, Bradford A. . . . . 37,244,295  
Smith, Daniel . . . . . 182  
Smith, Martin H. . . . . 167  
Smith, Thomas W. . . . . 376  
Smog, Los Angeles . . . . . 72  
Smoking . . . . . 8,185,310,351  
Smolin, Gilbert . . . . . 230  
Smoluchowski, Roman . . . . . 215,279  
Smythe, Charles M. . . . . 205  
Snail darter . . . . . 108  
Sniffer, Toxic . . . . . 46  
Snowmaking . . . . . 263  
Snyder, Ann . . . . . 69  
Snyder, Solomon H. . . . . 68  
Sobel, Burton E. . . . . 312  
Software, Educational . . . . . 135  
Soil dust . . . . . 376  
Soil erosion . . . . . 212,318  
Soil salinity . . . . . 289,298,305,314  
Soil samples . . . . . 73  
Soil, Nagasaki . . . . . 216  
Solar array . . . . . 280  
Solar eclipse . . . . . 88  
Solar system . . . . . 215  
Solar system nebula . . . . . 133,291  
Solar system, Beta Pictoris . . . . 244  
Solar wind . . . . . 52,117,197  
Solar-cell array . . . . . 150  
Soliton . . . . . 324  
Solovoy, Vladimir . . . . . 230  
Solter, Davor . . . . . 213  
Sommer, Alfred . . . . . 230,236  
Soper, Robert . . . . . 168,339  
Soren, David . . . . . 100  
Sorghum sprouts . . . . . 109,226  
Sound perception . . . . . 252  
Soviet cosmonauts . . . . . 230  
Soviet scientists . . . . . 72  
spaA gene . . . . . 182  
Spak, Albert . . . . . 140,222  
Space agreements,  
U.S.-Soviet . . . . . 230,295  
Space biotechnology . . . . . 280  
Space research . . . . . 103  
Space shuttle . . . . . 39,61,117,  
133,150,326  
Space shuttle, Secrecy . . . . . 398  
SpaceLab, ESA . . . . . 61  
Spaeth, George L. . . . . 351  
Species survival . . . . . 232,250



